First publication: August 15, 2016 (Creatspace and KDP)

BREAKING CLASSICALRULES IN TRIRONOMETRY: MISSION 2050

Exact Trigonometric Ratios for all Angles

[Using Precise –Rewritten method]

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November 13, 2016

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REQUEST: I request to the scholar to copy edit following source books, so that each scholar may understand the new method. I may be reached at bhavanathdahal@gmail.com.

Source: Details of method and basis of calculation is available either on "Exact Trigonometric Values: Five new methods" or 'Precise-Rewritten method", published by Creatspace plateform, USA.

Suggestion (with above request): Can you solve higher-degree trigonometric equation ($\sin(nx)$) with n number of solution, please visit https://higher-equation.quora.com/Solving-Higher-degree-Trigonometric-Equation

Exact Trigonometric Ratios [$\sin(n^o)$]

Determination method: Precise-Rewritten method developed by Bhava Nath Dahal

$\sin(1^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(2^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(3^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(4^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(5^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(6^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(7^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(8^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(9^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2}$

$\sin(10^o) = \frac{1}{2} + \sqrt{(2-\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(11^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(12^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(13^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(14^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(15^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2-\overline{\sqrt{(2}$

$\sin(16^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(17^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(18^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2}$

$\sin(19^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(20^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(21^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(22^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(23^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(24^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(25^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(26^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(27^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2}$

$\sin(28^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(29^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(30^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2}$

$\sin(31^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(32^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(33^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(34^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(35^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(36^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(37^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(38^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2}$

$\sin(39^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(40^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(41^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2+\sqrt{(2}$

$\sin(42^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2}$

$\sin(43^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\sqrt{(2+\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(44^o) = \frac{1}{2}\sqrt{(2-\sqrt{(2-\overline{\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2-\sqrt{(2-\sqrt{(2+\sqrt{(2}$

$\sin(45^o) = \sqrt{2}$

Note: We can make different types of repeting pattern than as above. The best alternative will be similar repetition for double angles. To take other degrees and other trigonometric ratios, use $\sin(n^0) = \cos(90^o - n^0)$ and change the first '-' into '+' to obtain $\cos(n^o)$ and vice versa.

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